REMARKS/ARGUMENTS

The Office Action has been carefully considered. It is respectfully submitted that the issues raised are traversed, being hereinafter addressed with reference to the relevant headings appearing in the Detailed Action section of the Office Action.

Specification

At line 5 of page 6 of the specification, the description incorrectly refers to Figure 20 relating to misaligned caps being attached to the wafer including MEMS. This reference to Figure 20 should have referred to Figure 7.

A person of ordinary skill in the art would have realised that line 5 of page 6 should have referred to Figure 7 as this is the only drawing showing MEMS misaligned with attached caps.

We have therefore amended line 5 of page 6 to correctly refer to Figure 7.

Claim Rejections – 35 USC § 103

At page 2 of the Office Action, the Examiner has rejected claims 1, 5 to 7 and 15 to 17 as being unpatentable over Palmer in view of Cordes et al (US Patent Number 6,390,439) and Ohara et al (US Patent Number 5,668,033). Furthermore, the Examiner has rejected claims 2, 5, 7, 8, 23 to 14 and 16 to 18 as being unpatentable over Palmer, Cordes et al, Ohara et al, in view of Mishima (US Patent Number US 6,530,764) and Miyajima (US Patent Number 6,344,162).

Claim 1 has been amended to incorporate the subject matter of claims 3 and 5. Subsequently, claims 3 and 5 have been cancelled. Furthermore, the preamble of the claim has been amended to specify "A method of fabricating a separable mold for forming protective caps which are to be attached to a wafer". Support for "separable" can be found at lines 4 to 17 of page 10 of the specification and also Figure 16. We believe that this was an implied limitation of the claim, however, we have explicitly included the word to clarify the scope of the claim without introducing any new matter.

Reconsideration and withdrawal of this rejection is respectfully requested in light of the following comments.

Obviousness can only be established by combining or modifying teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

In particular, the MPEP states at §2143 "*Basic Requirements of a Prima Facie Case of Obviousness*" that:

> "*... three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.*
>
> *The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).*"

The Examiner contends on page 2 of the Office Action that Palmer discloses in Figures 9 and 10 a method of fabricating a mold for protective caps which are to be applied to a wafer. The Examiner has specifically referred to upper and lower dies 68 and 69 of Palmer. However, the Palmer is not related to a mold for forming the caps.

Palmer reads at lines 28 to 31 of column 10:

> *"Once the cap 50 is in place (as shown in FIG. 9), the assembly is disposed in a second mold cavity formed by upper and lower dies 68, 69 brought into closing relation as illustrated in FIG. 9."*

Clearly, the caps are not formed in molds 68 or 69 as the caps are in place before being placed in the second mold cavity. Claim 1 is directed towards the molds used for manufacturing the caps that protect the wafer. Palmer has no relevance to manufacturing the caps used for protecting a wafer. Palmer is only concerned with the manufacture of a sealed housing which includes caps, but this is irrelevant to the process of forming the caps.

For the Examiner's benefit we highlight lines 2 to 14 of page 6 which states the problem associated with manufacturing caps is that due to expansion the of the mold and wafer the formed caps may not be aligned with MEMS on a wafer when being attached, therefore damaging the MEMS on the wafer. By defining a relationship between the materials used for the molds and the wafer as well as the spacing between the cavities and formed caps, this problem can be alleviated.

As all the Examiner's rejections rely on Palmer which does not describe a method for fabricating the caps which are placed on the assembly, the rejection should be withdrawn.

If the Examiner believes that Palmer is relevant to claim 1, we would appreciate if specific steps for fabricating the caps be shown in Palmer.

In any event, as claim 1 has been amended to include the subject matter of claims 3 and 5, we believe the first requirement of a Prima Facie Case of Obviousness for amended claim 1 is not satisfied.

Palmer and Miyajima and describe molds which are seperable from the molded product. In contrast, Cordes et al describes a mold which is not separable after molding is completed (ie. the face plate and backing plate are note separated from each other after the molding has been completed). Thus, a person of ordinary skill in the art would not think to combine the teachings of Cordes et al which teaches forming a molded product integral with the molds, with Palmer or Miyajima which disclose separable molds for forming a molded product.

As Palmer and Miyajima are related to separable molds and Cordes et al is related to molds integral to the molded product, there would be no motivation to combine the documents. Therefore, the first requirement of a Prima Facie Case of Obviousness has not been satisfied in regard to amended claim 1.

Furthermore, the second requirement of a Prima Facie Case of Obviousness for amended claim 1 is not satisfied in regard of Palmer and Miyajima in view of Cordes et al as there is no reasonable expectation of success that the three documents could be combined. No where in Cordes et al, Miyajima or Palmer is there suggestion that a technique for molding a product integral with the mold could be used with a separable mold.

Additionally, the third requirement of a Prima Facie Case of Obviousness for amended claim 1 is not satisfied in regard of Palmer and Miyajima in view of Cordes et al as the combined references do not teach or suggest all the claim limitations. In particular, the combined references fail to teach or suggest a method of manufacturing molds including cavities defining a spacing which corresponds to a spacing provided on the wafer which the formed caps are to be attached.

Claim 1 specifies the cavities defined by the fabricated molds have a spacing that corresponds to a spacing provided on a wafer. Due to the wafer and mold being made from the same material, any expansion or contraction of the mold results in the same expansion as the wafer, and therefore when the formed caps are attached to the wafer after molding, the spacing between the caps corresponds to the spacing on the wafer.

Neither Palmer, Miyajima nor Cordes et al disclose a method of manufacturing molds to solve the problem of attaching caps to a wafer wherein the spacing of the formed caps is critical so as to not damage MEMS on the wafer.

In regard to the Examiner's footnote on page 3 of the Office Action, we believe that the amendments to the claim include all essential structural cooperative relationships of the elements, such as the spaced relationship between the cavities and the wafer.

In regard to the Examiner's comment in paragraph 4 regarding the intended use limitation does not impart patentability, we respectfully submit that amended claim 1 does include patentability due to the spacing of the cavities corresponding to a spacing provided on the wafer. Furthermore, the structure of the molds fabricated using the method is patentable. For example the spacing of the mold corresponding to the wafer is material to the structure of the mold. Furthermore, the material of the mold being the same as the material of the

wafer is not immaterial to the structure of the mold as this attempts to overcome problems associated with different rates of expansion of the mold and wafer. As such, amended claim 1 includes patentable limitations which are material to the fabricated structure of the mold.

Reconsideration and withdrawal of the rejection is respectfully requested.

Very respectfully,

Applicant:

KIA SILVERBROOK

C/o: Silverbrook Research Pty Ltd
393 Darling Street
Balmain NSW 2041, Australia

Email: kia.silverbrook@silverbrookresearch.com

Telephone: +612 9818 6633

Facsimile: +61 2 9555 7762